PUBLIC TECHNOLOGY, INC.

Crossing Boundaries

On the Road to Public–Public Partnerships

RECOMMENDATIONS FOR IMPROVING COLLABORATION AMONG LOCALITIES, STATES, AND THE FEDERAL GOVERNMENT

PUBLIC TECHNOLOGY INC.

U.S. Department of Transportation
Federal Highway Administration

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16. Abstract

The importance of public–public partnerships is easily overlooked, despite the fact that these partnerships are the backbone of numerous technology, operations and infrastructure initiatives in metropolitan areas across the U.S. Few studies prior to this white paper have explored the dynamics of crossing the boundaries necessary to establish fruitful partnerships among public agencies.

Crossing Boundaries: On the Road to Public-Public Partnerships recommends strategies for improving collaboration from the bottom up. The recommendations come from local and state leaders who are currently leading the charge within the atmosphere of TEA 21 reauthorization to accommodate the new demands placed on them as a result of the terrorist attacks on September 11, 2001. The paper's intent is to focus attention on both vertical and horizontal public/public partnerships.

"Collaboration" is defined as any cooperative effort between and among governmental entities (as well as with private partners). Such collaboration can range from very informal, *ad hoc* activities to more planned, organized and formalized ways of working together. The collaborative parties work toward mutual advantage and common goals. They share a sense of public purpose, leverage resources to yield improved outcomes, and bridge traditional geographic, institutional, and functional boundaries. Collaboration leads to improved understanding of the ways various levels of government interact and carry out their roles and responsibilities. The resulting effect frequently streamlines operations and enhances quality of life for residents of the localities involved.

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FOREWORD

The importance of public–public partnerships is easily overlooked, despite the fact that these partnerships are the backbone of numerous technology, operations and infrastructure initiatives in metropolitan areas across the U.S. Few studies prior to this white paper have explored the dynamics of crossing the boundaries necessary to establish fruitful partnerships among public agencies.

Crossing boundaries is a concept that is ideal for those in public agencies seeking to accomplish more with existing resources. The strategies identified in this report serve as important tools as today's issues and dilemmas become more and more complicated, driven by the complexity of major challenges, the blurring of organizational lines, the increasing diffusion of authority and the rapid advances in technology.

In 1997, Public Technology, Inc. (PTI), in cooperation with the American Association of State Highway and Transportation Officials (AASHTO) and the National Association of City Transportation Officials (NACTO), published *Technology: A Bridge to the States.* This key publication explored as a central theme vertical partnerships, the cooperation between state and local governments in implementing Intelligent Transportation Systems (ITS) through the creation of technology platforms, and how these platforms could be used as a basis for further interagency activities. In 2001, a focus group comprised of members of the PTI Urban Consortium Transportation Task Force and the leadership of AASHTO sought to advance this concept of collaboration.

In 2001, PTI and the Federal Highway Administration (FHWA) published *How Can We Work Together? A Guidebook to Smart Response through Coordinating Local Public Safety and Transportation, Communications and Technology*. The publication focused on the leadership needed to break down turf barriers and to encourage cooperative planning, investment and operations. In 2002, a second focus group drawn from PTI's Transportation, Telecommunications/Information Systems and Public Safety Task Forces, identified institutional, technical and policy barriers as well as ways to overcome them. The group determined actions required to make the collaborative progress easier.

Crossing Boundaries: On the Road to Public-Public Partnerships offers recommended strategies for improving collaboration from the bottom up; the recommendations come from local and state leaders who are currently leading the charge within the atmosphere of TEA-21 reauthorization to accommodate the new demands placed on them as a result of the terrorist attacks of September 11, 2001, and the growing congestion that plagues metropolitan areas. The paper's intent is to focus attention on both vertical and horizontal public/public partnerships.

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At PTI, Robert Hicks oversaw the project from concept to completion. At the Federal Highway Administration, the Office of Operations provided invaluable input and guidance. Walsh Graphics provided copy editing and design services.

PTI is the nonprofit technology R&D organization affiliated with the National League of Cities, the National Association of Counties, and the International City/County Management Association. Since 1971, PTI has tapped the collective knowledge of its member jurisdictions and partnerships with private industry to create and advance technology-based products, services, and enterprises in cities and counties nationwide.

The Transportation Task Force guides PTI's Local Government Intelligent Transportation Systems (ITS) Outreach and Technology Transfer Program, which ties advanced transportation technology research, planning and implementation activities to the needs of local governments.

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SECTION I:
Approach, Major Observations,and Recommendations

Background and Reader's Guide

Crossing Boundaries: On the Road to Public-Public Partnerships is the result of a continuing effort by the U.S. Department of Transportation/Federal Highway Administration and Public Technology, Inc. (PTI) to engage in dialogue about collaboration and technology with member organizations; local, regional, state, and federal agencies; and other associations. The goal of PTI's initiative is to advance collaboration across units of government and between functional areas, especially transportation, public safety, and security.

"COLLABORATION"

is defined as any cooperative effort between and among governmental entities (as well as with private partners).

"Collaboration" is defined as any cooperative effort between and among governmental entities (as well as with private partners). Such collaboration can range from very informal, ad hoc activities to more planned, organized and formalized ways of working together. The collaborative parties work toward mutual advantage and common goals. They share a sense of public purpose, leverage resources to yield improved outcomes, and bridge traditional geographic, institutional, and functional boundaries. Collaboration leads to improved understanding of the ways various levels of government interact and carry out their roles and responsibilities. The resulting effect frequently streamlines operations and enhances quality of life for residents of the localities involved.

This work builds on the collaborative effort over the last several years between PTI and the Federal Highway Administration, including joint sponsorship and the 2001 publication of *How Can We Work Together? A Guidebook to Smart Response through Coordinating Local Public Safety & Transportation, Communications and Technology.*

It also elaborates on the work of focus groups held in 2001 and 2002 to explore both horizontal and vertical collaboration across subject areas and among levels of government. The first focus group, conducted in July 2001, addressed local and state collaboration in transportation management and operations, while the May 2002 meeting addressed transportation, public safety and telecommunications/information systems.

Group participants provided numerous encouraging suggestions for collaboration in the future.

Two important events have shaped the findings and recommendations highlighted in this white paper: the terrorist attacks of September 11, 2001 and the impending Congressional reauthorization of the surface transportation act. After September 11, 2001, all levels of government have heightened attention to and discussions of public safety and security and the close interrelationships between safety, security, and transportation. The themes of communication, technology, collaboration, and integration of goals, processes and outcomes run throughout these discussions.

In looking forward to the reauthorization of Congressional legislation for surface transportation, PTI and its members see a timely opportunity to provide input to the legislative debate, in hopes that resulting federal funds and programs will support collaboration and improved transportation services, public safety, and security at all levels of government.

With this legislative context in mind, the recommendations are organized into those for federal programs, followed by recommendations for national efforts that might be carried out by federal agencies or by national organizations like PTI and its sister associations, followed by recommendations for action by state, regional, and local entities. Within each set, recommendations are grouped into related topics and are ordered based on the logical flow of ideas from one recommendation to the next, as well as on the relative attention given to a topic by participants. The recommendations reflect an array of opinions from focus group participants and are not necessarily consensus recommendations from all participants in each of the groups.

Actions to carry out the recommendations might take shape in many ways:

- **Legislation**
- **Regulations**
- **Policies**
- **Funding**
- **Research and development**
- **Technical assistance**
- **Program initiatives that develop and use collaborative structures**
- **Processes that help agencies work together effectively**

The actions would reflect the predominant roles of governmental agencies at different levels, with local, regional and state governments focused more on planning and deployment of capital systems, operations, and service delivery; and federal agencies focused more on funding, regulation, technical assistance, and research and development.

Crossing Boundaries is based on major observations from the focus groups, followed by recommendations from localities for federal programs. The appendices include detailed reports on each of the focus groups, a list of participants in the focus groups, and the findings of a web survey conducted by PTI in the Spring of 2002 concerning changes in local initiatives on safety and security as a result of September 11, 2001.

Major Observations from the Focus Groups

Collaboration is not just working together. It is thinking in a fundamentally different way about the nature, scale, outcomes and relevance of transportation systems operations, public safety and security.

"COLLABORATION"

is not just working together. It is thinking in a fundamentally different way about the nature, scale, outcomes and relevance of transportation systems operations, public safety and security.

Communication, leadership, and funding are key factors for successful collaboration. Communication helps build appreciation for partners' goals and needs, while fostering shared agendas. Two-way communication with users and citizens helps agencies to inform and educate them and, in turn, to better understand customers' needs. Better partnerships with the media assist agencies' communication efforts.

Championship by leaders is important to gain legislative and financial support for major initiatives related to transportation operations, public safety and security, and better integration and use of technology and telecommunications. Internally, the support and buy-in of leaders sets an example for staff at all levels to be good partners with others.

A customer focus is essential, because it fosters collaboration and new ways of understanding governments' responsibilities to those being served. Such a customer focus requires attention to the interconnectedness of the transportation system, the vital roles of operations and management, and the outcomes of transportation in mobility, public safety and security.

Interoperability is a likely result of collaboration and cooperation. It promotes efficient and effective system performance, public safety preparedness, and better response to typical and extraordinary incidents. It enables agencies to leverage one another's resources. Daily collaboration provides the basis for agencies to be better prepared to work together on major incidents. Lack of compatibility and interoperability between technical systems is a major barrier to collaboration. Changing technologies, legacy systems, and lack of open systems can also create problems.

Goals, needs and priorities vary from region to region around the country, as do roles and responsibilities of organizations involved in transportation operations

and public safety. Communities have differing concerns, ranging from the throughput of traffic, to traffic calming, to concerns with sprawl, to focus on economic development. Collaboration needs to be tailored to regions, and no one-size-fits-all approach will be successful everywhere.

Challenges for collaboration include inadequate funding to meet operational needs and customer expectations; poor alignment between budgets, schedules and resource needs; the complicated mix of funding sources, federal/state/local splits, requirements, and constraints; and competing or shifting priorities.

Localities feel the burden when levels of government above them impose regulations, requirements, and unfunded mandates that strain local resources. They need more funding to play their part in collaborating with federal and state governments on transportation operations, public safety and security. They also need more direct ways to receive federal funds and more flexibility in the use of funds from state and federal entities.

It is important to identify the full range of stakeholders who need to be involved in collaboration, including non-traditional partners, the private sector, and the media. A related challenge is bridging the cultures of organizations like fire, police, transportation, and emergency services.

Transportation technologies and telecommunications are a big safety and security concern because of lack of compatibility and interoperability, both functionally and institutionally.

All traffic incidents are local and require local commitment and participation to manage them effectively. On the other hand, incident management is, by its very nature, a program of integrated services. Therefore, it should be planned, programmed, coordinated, and funded using a unified approach so that the goals of many participating agencies are met.

Recommendations

Federal Programs

FUNDING

1. Develop funding programs that allow localities to receive some federal funds directly, rather than passing through states. Direct funding could be used to integrate technologies for transportation systems operations and intelligent transportation systems with those for public safety and security.

2. Build interoperability requirements into funding criteria. Favor systems that are interoperable across jurisdictions (local, regional and state), agencies (such as transportation, fire, and police), and applications (such as integration of transportation systems operations and public safety). Target funds to localities and regions that develop integrated systems, including seed money to implement innovative programs.

3. Localities and states should develop performance measures for their own use in assessing the achievement of desired outcomes. Encourage use of performance measures as a condition for receiving federal funds to support coordinated transportation systems operations.

4. Provide more flexibility and reliability in funding cycles to accommodate multi-year programs (in contrast with current year-to-year distribution of funds).

5. Federal funds must focus on areas that do not duplicate programs traditionally funded by states and localities, but that incrementally fund extra efforts to advance integration and enhance coordination.

6. Provide federal funding to support regional comprehensive planning.

7. Build provision for densely populated urban areas into funding formulas.

8. Federal fund must focus on efforts that promote efficient spectrum management in communications systems, potentially with a substantial federal match of local dollars.

FUNDING

Localities feel the burden when levels of government above them impose regulations, requirements, and unfunded mandates that strain local resources.

PROCESS AND PROGRAM IMPROVEMENTS

1. Streamline regulatory and environmental review processes to promote timely planning and implementation. Provide training to smaller communities.

2. Establish a new joint program office for integration of transportation operations, public safety and security. Identify roles for localities, regions, states,

and the federal government in integrated planning and implementation. Identify incentives and funding criteria for such collaboration.

COORDINATION AND INTEGRATION

1. It is essential to coordinate federal programs and integrate federal modal agencies so they exemplify and are models for integrated, multimodal approaches to transportation, public safety and security. At present, federal programs and agencies are highly segmented, making it much harder for states and localities to collaborate and develop integrated programs.

2. Identify a common vision for public safety and security among all relevant federal agencies and programs, perhaps through a national forum or other action.

R&D

Support R&D to foster fully integrated communications systems, including fire, police, emergency services, and medical services data; criminal justice data; geographic information systems data; and transportation systems operations data.

TECHNICAL ASSISTANCE

1. The federal government should to continue to play a strong role in identifying and sharing best practices; providing education, training and technical assistance; enhancing program management; fostering technology transfer; and serving as a clearinghouse and resource on interoperable and intermodal systems that cross functional areas.

RESEARCH AND DEVELOPMENT

1. Support telecommunications research and development on the interface between transportation operations technologies and public safety dispatch systems.

2. Support research on the optimum uses of bandwidth for public safety communications, communications systems' capacities with critical load factors, recommendations for reliable communications during crises, and anticipation of future needs for bandwidth. Identify opportunities and needs to work with the Federal Communications Commission and provide input on goals and needs for managing spectrum capacity.

3. Support research and development to foster fully integrated communications systems, including fire, police, emergency services, and medical services

data; criminal justice data; geographic information systems data; and transportation systems operations data. Such integration must include real-time response and supplemental video and voice communication.

4. It is critical to include localities as partners in research and development programs, to identify areas needing attention, as partners in applied research, and as testbeds for deployment.

5. Federal efforts are needed to address legal and privacy issues associated with collecting and using data for transportation system management and operations and for public safety and security.

Other National Level Actions

DESIGN STANDARDS

1. Build incident management into geometric design standards to reduce the occurrence and severity of incidents.

COLLABORATION AND DIALOGUE

1. Foster intergovernmental and public-private collaboration to enhance data security.

2. Hold national dialogues on telecommunications and interoperability issues and needs related to transportation, public safety, and security. Focus particular attention on wireless telecommunications.

COLLABORATION

Collaborate across jurisdictions by sharing data, information, communications systems and funding.

Other Recommendations

PARTNERING AND COLLABORATION

1. Collaborate across jurisdictions by sharing data, information, communications systems and funding. Explore requirements for coordinated incident management, and examine interoperability across jurisdiction boundaries. Improve the collaboration process through legislative and citizen coalitions or local advisory committees working with states to reform processes generally, and not just around specific projects or problems. Use roundtable discussions supported by operating entities to explore approaches to collaboration.

2. Explore the need for partnerships across regions, as a basis to lobby for resources regionally and standardize the development of regional systems. Partnerships across regions may also be based on cooperation between federal and state officials and agencies, among and across the array of

agencies involved with public safety, including public health entities, and between the sector and business partners. Regional partnerships may include professional associations for information and assistance.

3. Develop interagency project teams and partnering processes at the start of each project or program as a way of institutionalizing collaboration among all stakeholders. Adapt from the transportation corridor approach, bringing people together around a specific project, and then broadening the scope of collaboration beyond the project, as a natural way to enhance collaboration.

4. Identify potential partner organizations to Public Technology, Inc., including the National League of Cities, the National Association of Counties, the International City/County Management Association, the International Association of Fire Fighters, the Fraternal Order of Police, the Association of Public Communications Officers, and others.

ROLES

Determine appropriate state and local roles in collaborative incident response and management, including legislation, funding coordination, definition of roles and responsibilities for participating responders, standardization of processes and procedures for all phases of incident response, management, cleanup, and debriefing.

ROLES AND RESPONSIBILITIES

1. Institutionalize the collaboration process for working together through project agreements, which allow local management of a variety of federal, state, and local resources. Use memoranda of cooperation to improve dialogue on operations.

2. Determine appropriate state and local roles in collaborative incident response and management, including legislation, funding coordination, definition of roles and responsibilities for participating responders, standardization of processes and procedures for all phases of incident response, management, cleanup, and debriefing. Include public safety in regional ITS architectures.

3. Determine appropriate joint roles between states and localities and with the private sector to improve transportation operations and safety through the use of technology and telecommunications.

4. Determine collaboratively the appropriate state or local agency to serve as a central repository for data, with necessary technology to support and coordinate data collection and storage. Determine lead and support roles, as appropriate.

5. Use a systems approach to planning for transportation management and operations, to encompass all aspects of processes and programs that feed management and operations. Explore the need for common systems across jurisdictions.

STANDARDS

1. Identify areas for collaboration between localities and states on performance measurement, including identifying what is important to the public, appropriate indicators of performance, who will develop these and how they will be used. Identify needed resources and implementation responsibilities.

2. Identify levels of accountability for each performance measure, and ensure that all levels in an organization are accountable. Determine what kinds of accountability are most important to customers, through surveys, focus groups, and ongoing reporting on customer satisfaction.

3. Provide input to establishing standards using a bottom-up strategy, and across a variety of collaborations.

DATA SHARING AND FUNDING

1. Explore platforms for data transfer and integration, so collaborating agencies have access to needed data that is current and reliable, and available in various formats and modes (radio, video, electronic).

2. Include both capital and operating costs in identifying the financial implications of new or replacement telecommunications and management systems and technologies.

MEDIA

Improve communication with the media, to increase understanding of transportation operations and public safety.

COMMUNICATIONS

1. Communicate with and educate the public on traffic enforcement technology benefits—lives saved, congestion prevented, and other important measures. Communicate the need for and benefits of interjurisdictional collaboration—reducing duplication and waste, improving system operations and incident response, and enhancing public safety and security. In communicating with the public, use lay terms and language appropriate to an area's population to help the public comprehend the issues and provide feedback.

2. Improve communication with the media, to increase understanding of transportation operations and public safety.

3. Provide closer networking among all existing players in a region where many jurisdictions are already involved in operations and public safety, as an alternative to establishing new regional or multi-state entities. Define a process for establishing and communicating priorities for collaboration, such as setting up joint state/local committees. ■

SECTION II: SUMMARIES OF FOCUS GROUPS AND WEB SURVEY

July 11, 2001 Focus Group
Fostering State and Local Collaboration on Transportation Management and Operations

The session began with welcoming remarks by Robert Hicks, Public Technology, Inc. (PTI) and Janet Oakley, The American Association of State Highway and Transportation Officials (AASHTO), followed by introductions. Hicks and Oakley expressed their appreciation for the time, interest, and participation of the attending state and local officials. Hicks explained PTI's mission and intent in relation to convening the focus group, noting that PTI is the non-profit technology organization of the National League of Cities, the National Association of Counties, and the International City/County Management Association. Both, Hicks and Oakley commented on the significance of collaboration in furthering transportation efficiency.

Facilitator Kathy Stein summarized the roles of participants, observers, and herself, and explained how the group would use technology as an aid in processing comments. She described the goals of the focus group:

- to understand current collaborative efforts between states and localities;
- to identify challenges and opportunities for increased collaboration;
- to obtain participants' views on ways to foster collaboration, and recommended next steps;
- to contribute to the National Dialogue on Operations; and
- to contribute to the October 2001 National Summit on Operations.

For the purposes of the focus group and the entire initiative, Stein defined "collaboration" as any cooperative effort between localities and states working together on some aspect of transportation operations. Such collaboration might range from very informal, ad hoc activities to more planned, organized and formalized

ways of working together. Put another way, she said, collaboration was the process of parties working together toward mutual advantage and assistance.

Finally, she reviewed the agenda and timing for the focus group before launching the discussion. The agenda introduced three major activities:

COLLABORATION

Possible approaches to future collaboration range from ad hoc and informal approaches at one end of a continuum, to formally designating existing or new multi-state or regional entities to carry out specific operational activities at the other.

General Collaboration. Discussion of the ways in which localities and states are collaborating currently on transportation operations, including activities leading to success, and the challenges and issues that have emerged;

Specific Collaboration. More detailed consideration, via small group discussion, of collaboration on four aspects of transportation management and operations:

- Planning for operations
- Incident response
- Traveler information
- Performance measurement

Future Opportunities. Consideration and discussion of a range of possible approaches to future collaboration, ranging from ad hoc and informal approaches at one end of a continuum to formal designation of existing or new multi-state or regional entities with responsibility to carry out specific operational activities at the other.

How States and Localities are Collaborating Now

EXAMPLES

Participants cited a wide range of examples of current and recent collaborative efforts between their organizations and corresponding state or local entities in their regions. These included:

Collaboration around major planned events of national and international stature, e.g.:

- the Democratic National Convention
- the Olympics

Regional and local efforts, e.g.:

- A regional database in Houston on road construction closures
- Co-location of offices in Los Angeles between city transportation and Caltrans district staff

Collaboration in the planning and operation of transportation facilities and services that spanned multiple jurisdictions, e.g.:

- Minnesota's emphasis on interregional corridors rather than individual roadways;
- Silicon Valley's smart corridor with monitoring and control systems spanning multiple local jurisdictions.

Two important points emerged early as participants related these examples.

1. Collaboration is not just working together. It is thinking in a fundamentally different way about the nature, scale, outcomes, and relevance of transportation systems operations to many governmental entities.
2. A customer focus is key, because it fosters such collaboration and new ways of seeing operations, and because it requires attention to the interconnectedness of the transportation system and a bottom line focus on the outcomes of operations for customers.

CUSTOMER FOCUS

A customer focus is key, because it fosters such collaboration and new ways of seeing operations, and because it requires attention to the interconnectedness of the transportation system and a bottom line focus on the outcomes of operations for customers.

SUCCESS FACTORS

About a dozen different success factors were noted, with communication, leadership and funding emphasized most.

Communication factors included:

- The value of informal networks in overcoming communication barriers;
- Regular sharing on critical issues between partners before they become policy and budget problems;
- Constant communication across all lines so everybody knows everyone else's business;
- Internal and partner-to-partner communications;
- Two-way communication with users and citizens, so agencies understand customer needs and so users and community members are informed and educated via communication from agencies.

Participants stressed the value of such communication in building appreciation for partners' goals and needs and in fostering shared agendas.

Roles. In addition to citing their own interest in and encouragement of collaboration, focus group leaders commented on the essential roles of leaders and champions more generally. Leadership factors included:

- Creating understanding relationships with funding managers;
- The necessity of leader buy-in and commitment in setting an example for staff at all levels to be good partners with others.

Funding emerged repeatedly in the focus group as a key factor, including:

- Realistic, adequate funding to support collaborative efforts;
- Adequate planning for the level of financial support truly necessary for operations to work smoothly and meet customer expectations;
- Day-to-day funding needs of operations are crucial—and they are not insubstantial—in addition to funding for visible capital investments that generally capture the public's attention and gain recognition.

FUNDING

Day-to-day funding needs of operations are crucial in addition to funding for visible capital investments.

Other success factors included:

- Building on a successful track record of accomplishments;
- Making public acknowledgement of partner agencies' contributions;
- Gaining positive media coverage and political support;
- Responding to real public needs; and
- Gaining trust in one another.

CHALLENGES

Drawing on their experiences in collaborating, participants cited a host of challenges, with three receiving the most attention—funding, competing or shifting priorities, and a variety of structural and procedural challenges emanating from our organizations and how we do business.

Funding issues included:

- Inadequate funds to meet operational needs and customer expectations;
- Poor alignment between budget schedules and resource needs; and
- The complicated mix of funding sources, splits, requirements, and constraints.

Priorities were addressed from several angles:

- At a basic level; organizations often have different agendas;
- Certain challenges emanate from changes induced by funding priorities—some needs must be met first and others, while still important, become a lower priority;
- Priorities change relative to user needs and markets and, while this is good from the standpoint of responding to those we serve, it means that our focus shifts from other efforts underway.

Throughout the discussion on priorities, there was a sense that the dynamics of changing priorities induce misalignments among partners. In effect, from a shared agenda and commitment to a particular effort, shifting priorities might render partners "out of sync." This challenge clearly relates to communications, understanding, and trust between partners.

Structural and procedural challenges included:

- Resistance to change—"bureaucratic calcification" in the colorful words of one participant, as well as "this is how we've always done it;"
- Permitting processes of all varieties and environmental reviews;
- Too much planning when there is need for action;
- Time constraints that hinder good project development; and
- Conflicting performance objectives.

Leadership, participation, and decision-making emerged in different ways. People felt that the credibility of leadership, leaders' willingness to make tough decisions, lack of clear processes for making a final decision and getting on with action can be real challenges. Negative mindsets and the challenge of keeping people interested and involved were also noted, as were periodic changes due to election cycles and staff changes.

The dynamics of changing priorities induce misalignments among partners.

Issues Between Localities and States

Building on the discussion of collaboration examples, Stein asked participants to list key issues states have in collaborating with localities and vice versa. Participants individually generated their lists of issues, which were grouped into two clusters: those from a state perspective and those from a local perspective. A total of thirty-five issues were listed.

From a local perspective, these familiar refrains were heard:

- "funding, funding, funding"
- "sometimes the state perspective is insensitive to local concerns" and
- "state review processes are cumbersome."

From a state perspective, comments included:

- "land use and planning issues"
- "often local entities don't speak with one voice" and
- "work off a realistic budget and get financial commitments early in the process."

The full group then organized the issues by type (funding, communication, etc.) and noted types that were common to both states and localities. This core group of major issues became the focus of further discussion:

- Funding and resources
- Processes
- Communication
- Different perspectives

FUNDING

Localities feel the burden when levels of government above them impose regulations, requirements, and unfunded mandates that strain local resources.

Participants were asked to identify ways that these issues might be realistically resolved, to the mutual benefit of local and state partners. While participants were not asked to rank the five major sets of issues, they are listed in rough order of the amount of attention they received. Obviously, many of the issues are closely related, e.g., striking advance agreements on funding is a solution related to resolving funding and resource issues, improving processes and procedures, and communication.

Suggested Solutions

FUNDING AND RESOURCE SOLUTIONS

Focus group participants commented at length on ways to address resource constraints. Most of the solutions identified fall into two broad categories:

- Who receives funds and how, and
- Getting agreement on budgets.

A formalized cooperative process is needed, not just a "pass it up through the MPO process," noted one person. Other suggested solutions included:

- Allowing locals to receive some federal funds directly rather than as a pass-through;
- Passing funds through to locals; and
- Oversubscribing the funding pass-throughs from states to locals.

Another suggestion was to have agencies share in the costs, allowing that some agencies have core competencies and can achieve certain results better than others. One participant felt that project agreements, which allow local management of a variety of federal, state and local resources—and for both projects and operations—would enable effective use of resources. Another suggestion was to agree on a budget amount and then work toward a solution within that parameter.

Additional comments related to funding include the observation that limited funding can encourage cooperation, and that TEA-21 money is distributed on a year-to-year basis rather than flowing in a more flexible manner.

PROCESS IMPROVEMENTS

The need to streamline various processes came up frequently. Participants suggested that streamlining regulations would help, since many are cumbersome and tend to slow down progress. One person suggested environmental streamlining for states with thorough environmental reviews. Another said that we "need some czar who can decide on environmental streamlining issues. Right now, NIMBYs (not in my back yard) and BANANAs (build absolutely nothing and not anywhere) rule."

ENVIRONMENT

NIMBYs (not in my back yard) and BANANAs (build absolutely nothing and not anywhere) rule.

Participants noted the need to develop legislative and citizen coalitions to reform processes generally, rather than just around specific projects or problems. Local advisory committees to states on processes could be a useful mechanism for communication. Speaking broadly on the need for process improvements one person stressed "rather than complain about the process, change it!" Waiting for local sign-offs can put projects off track, said one, while another felt that increased contracting for portions of project development would help.

The need to work collaboratively from the beginning was raised, such as in developing interagency project teams; identifying obstacles early on; starting a cooperative process for projects to stay on schedule; and establishing partnering sessions to help prove that the "other side is OK."

COMMUNICATION IMPROVEMENTS

Participants suggested ways to improve both communication among local and state partners and communication with the public. It was necessary to focus on "communication among state and local concerns, as well as with travelers." Having a well-defined process for establishing and communicating priorities would improve local and state collaboration, as would setting up joint state/local committees. Face-to-face meetings to discuss and resolve issues quickly was also suggested. Leaders should set a good example of listening, noted one person.

Participants stressed that when communicating with the public, transportation jargon needs to be replaced by language that lay people can understand. "Never refer to policy," said one, "refer to logic." The need to translate information into other languages, depending on the region and community, was also highlighted.

OVERCOMING DIFFERING PERSPECTIVES

Several people commented on optimal conditions for localities and states to work effectively together, despite differing perspectives. In emergency and other situations having common or urgent goals, decisions are often made quickly and, out of necessity, actions taken immediately. Another participant said the same result occurs when people from adjoining localities are pooled toward a common purpose, while officials must give up a sense of territoriality. A focus on the best technical solutions is important, commented another.

COMMUNICATING

When communicating with the public, transportation jargon needs to be replaced by language that lay people can understand.

Participants said that goals and expectations vary, not just between states and localities, but also community to community. Different concerns take precedence, and they range from the throughput of traffic, to traffic calming, to concern about sprawl, to focus on economic development.

Several solutions were proposed in order to improve sensitivity to other entities. One person felt that it was important to appreciate process versus product, while another felt that sensitivity training for DOT managers and rotation programs to give experience in local agencies would be helpful.

Successes emerging from collaboration should be celebrated, said one participant, while another stressed the need to move forward on agenda items that are "quick wins—find common grounds and get something done."

Collaboration Aspects

In this portion of the focus group, participants were asked to discuss state and local collaboration on four different aspects of transportation management and operations:

- Planning for operations
- Incident response
- Traveler information
- Performance measurement

Small groups were formed for each of these aspects of operations, and participants responded to these questions:

- What are appropriate roles for states and localities in such collaborations?
- What is the appropriate federal role in facilitating this type of collaboration?
- What needs to be done to make this collaboration effective for all, including the traveling public?

PLANNING FOR OPERATIONS

Participants working on this topic stressed a need to take a systems approach to planning for transportation management and operations, which encompasses all aspects of management and operations. Regarding roles of agencies, they stressed that it is a partnership, with no single entity in charge. All stakeholders need to be at the table to help plan solutions. In addition, the stakeholder group should include many entities other than transportation agencies, such as the state patrol. Above all, it goes without saying that the beneficiaries of all this effort must be the traveling public.

To ensure collaboration around planning for operations is effective, partners should institutionalize the process for working together. They also need to define performance standards and guidelines, for example, on how quickly accidents will be cleared, how speeds will be maintained on facilities, and other aspects of transportation system performance. On the public side, a strong communications plan must be part of the overall effort. That must include obtaining feedback from citizens, as well as sharing information with them, including traveler information, status reports on how the system is functioning and being managed, travel alternatives such as public transit, and advance notice of closures, construction, and other planned system alterations and disruption.

All stakeholders need to be at the table to help plan solutions. The stakeholder group should incude many entities other than transportation agencies.

Participants felt that the federal government has a role in providing both funding and assistance to states and localities. Assistance includes streamlining permitting and other processes, along with providing training and information, especially for smaller communities. Flexible funding schedules and, potentially, a funding pool, would also help states and localities. Participants added "don't give us unfunded mandates." Federal agencies should model and exemplify an integrated, multimodal approach to transportation, in the same way that they ask this of states and localities. Participants felt that the federal agencies currently take a segmented approach.

INCIDENT RESPONSE AND MANAGEMENT

Appropriate state roles in this aspect of management and operations include funding coordination, standardization of processes and procedures, supportive legislation, and incident cleanup. States should also operate ITS systems to ensure that rural areas between major urban locations have ITS coverage. Local roles include providing emergency services back-up, along with fire marshal services for hazardous spills. As for federal roles, participants saw merit in identifying best practices, providing education and training, and fostering technology transfer.

To make collaboration on incident response and management effective for all parties, including travelers, incident management should use geometric design standards, thus reducing incidents and allowing easy cleanup after incidents.

Participants stressed the need for regional and corridor coordination through routine meetings, exchange of policies and practices between localities and states, and post-mortems of incidents to identify lessons learned. Media involvement in incident management is also important, and this should include providing information in lay terms and in languages appropriate to the area's population.

TRAVELER INFORMATION

STATE ROLES

Appropriate state roles include funding coordination, standardization of processes and procedures, supportive legislation, and incident cleanup.

The need for joint roles between states and localities was stressed. Participants noted that such joint efforts are helpful to identify critical links in operations that need to be automated. They also commented that localities and states need to determine jointly the roles and responsibilities for the private sector. Without specifying a lead role for one or the other, participants said that states and localities should serve as central repositories for data collection, including technology to support coordinated data collection, and for information on closures and other aspects of system operations that are of interest to travelers. Lead roles were noted in certain areas, such as 511 and transportation control centers, where states should have the lead role and localities should provide data. They noted that some localities may also have their own information sites, for example, for freight distribution. More generally, they commented on the need to address legal and privacy issues associated with collecting and providing traveler information, for example, through real time constant feed surveillance cameras.

As for the federal government, participants identified helpful roles in the areas of funding, defining systems architecture to facilitate interstate travel (for example, for 511 traveler information services), sharing information on technology and providing technology assistance and technology transfer, and serving as a resource for certain intermodal applications.

PERFORMANCE MEASUREMENT

Localities and states have important roles in identifying areas for collaboration on performance measurement, including identifying measures and how they will be administered and monitored, what is important to the public, who will do the measuring, and the resources available. Participants noted the need to identify what accountability means for a particular performance measure, pointing out that different levels in an organization will be accountable in different ways. The federal government has a role as a resource for information on best practices and as a source of technical assistance. The sub-group felt that performance measures should be tied to the receipt of federal funds, with states and localities responsible for selecting their performance measures.

To make collaboration around performance measures effective, localities and states need to determine what the public really cares about, through such means as surveys, focus groups, and ongoing reporting on customer satisfaction.

Opportunities for Further Local/State Collaboration

In this portion of the focus group, participants considered a variety of approaches to furthering collaboration between localities and states. Such approaches could range from:

- Informal, ad hoc collaboration, on a case by case basis, as desired by participants;
- More planned and organized processes and structures for collaboration, such as committees, designation of lead agencies, written statements about roles, and so forth; to
- Formal arrangements via designation of new or existing regional or multi-state entities, with clearly defined responsibilities to carry out specific activities related to transportation management and operations.

THE PUBLIC

To make collaboration around performance measures effective, localities and states need to determine what the public really cares about, through such means as surveys, focus groups, and ongoing reporting on customer satisfaction.

Participants felt that most current practices were at the informal or somewhat planned point on this continuum, and they spent most of the discussion on planned and more formalized approaches to collaboration. They also offered a host of ideas on other ways to foster collaboration.

As for planned approaches to support further collaboration, participants thought that roundtable discussions of operating entities would be helpful. The corridor approach, used to bring people together around a specific project, but then to broaden the scope of collaboration beyond the project, would be a natural way to enhance collaboration. Participants thought that a bottom-up strategy should be used to establish standards across a variety of collaborations, rather than top-down. Structured, scheduled meeting were seen as a way to "force people to get together whether they want to or not!" in the energetic words of one participant.

One challenge to sustained collaboration is the turnover of participants from different state and local agencies, due to retirement or job changes. This diminishes institutional knowledge and information networks. To address these gaps, it would be helpful to have cross-training and knowledge capture before people depart.

As for establishing new regional, multi-state entities, circumstances vary from one area to another. Participants felt that in many areas there are so many jurisdictions already involved in operations that adding a new player would be untenable.

What would be more helpful is to have closer networking among all the players in a region. One person suggested that MPOs could serve as facilitator for such discussions.

The need to foster communication and trust was stressed as essential to any collaborative effort, whether formal or informal. Mentoring was suggested as a good way to foster collaboration across organizations and with new staff. Speakers' bureaus formed from different agencies are another way to "share the message" of collaboration. When new projects are being planned, collaboration among all stakeholders should be institutionalized from the start. All stakeholders should be involved, after identifying the full range of stakeholders. One participant raised the question of "how much is enough collaboration?"

As in other focus group discussion topics, participants stressed that situations vary around the country and "one size does not fit all." Typically, it takes a catalyst or some other compelling reason for people to change and collaborate instead of going it alone. Sometimes this impetus can come from a sense of urgency to make needed improvements. One person, in commenting on the changes that occur over time, said that the AASHTO organizational structure is one example that has been in place for many years and it needs to change to fit current circumstances, such as the need to focus on operations. [Subsequent to this focus group, and growing out of discussions within AASHTO, such an organizational change was made to reflect the heightened attention to operations.] Such change is not easy to do. Another participant summarized the tenor of the overall discussion by saying that there is no single solution. Some places are aligned so that they can come together easily, while it is more of a challenge in other locations.

CATALYSTS

Typically, it takes a catalyst or some other compelling reason for people to change and collaborate instead of going it alone.

Recommended Next Steps

At the end of the discussion, the facilitator noted that this focus group is part of a larger and continuing effort, involving PTI, AASHTO, FHWA, and many others, to foster a national dialogue on transportation management and operations. She solicited suggestions from participants on potential next steps, including additional focus groups to foster continued dialogue, along with other efforts that could help to enhance collaboration among localities and states.

Participants said that this type of dialogue helps to broaden understanding among people from different backgrounds and with different responsibilities in transportation management and operations. It bridges across jurisdictions, both horizontally

and vertically among different units of agencies involved with transportation management and operations. Perhaps a memorandum of cooperation between professional associations to further dialogues on operations would be helpful. Another aid to further collaboration would be a better understanding among all agencies that all have a common goal of working for the same customers—travelers and the general public. Such understanding can help break down barriers between jurisdictions and enhance collaboration. ■

FOCUS GROUP PARTICIPANTS

PTI and FHWA gratefully acknowledge the contributions of the participants:

- **Douglas Alexander**, City Council Member, City of Atlanta, GA and National League of Cities Steering Committee Member
- **Frances Banerjee**, General Manager, Transportation, City of Los Angeles, CA
- **Dean Carlson**, Secretary, Kansas Department of Transportation and President, American Association of State Highway and Transportation Officials
- **John Deatrick**, Director, Public Works, City of Cincinnati, OH
- **Cristine M. Klika**, Commissioner, Indiana Department of Transportation
- **Dale Pope**, City Council Member, City of Everett, WA and National League of Cities Steering Committee Member
- **Dick Smith**, Deputy Director, Office of Planning and Programming, Illinois Department of Transportation
- **Wayne Tanda**, Director, Streets and Traffic, City of San Jose, CA
- **Elwyn Tinklenberg**, Commissioner, Minnesota Department of Transportation
- **Douglas Wiersig**, Senior Assistant Director, Department of Public Works, City of Houston, TX

May 17, 2002 Focus Group Technology, Public Safety and Telecommunications: Local Perspectives and Recommendations for National Programs

LACE

LACE: an acronym emphasizing the essential ingredients for collaboration: Listening, Assets, Collaboration, and Elimination of Barriers.

The session began with welcoming remarks by Dr. Costis Toregas, President, and Robert Hicks, Managing Director of PTI, stressing the importance of collaboration between localities and the federal government, and commenting on the goals of the focus group. Toregas used the acronym "LACE" to emphasize these essential ingredients for effective collaboration: Listening, Assets (leveraging one another's assets), Collaboration, and Elimination of barriers. He noted that this was the second of two focus groups (the first having been held in July 2001). Both Toregas and Hicks encouraged participants to be forthright, given that focus group findings would be used to help shape PTI's action agenda and make local recommendations on federal programs. They expressed their appreciation for the time, interest, and participation of the attending representatives of local and regional governments. Following these welcoming remarks, focus group participants and other attendees introduced themselves.

Facilitator Kathy Stein summarized the roles of participants, observers, and herself, and explained how the group would use technology to aid in processing comments. She described the goals of the focus group and reviewed the agenda of topics to be discussed relative to these goals:

- Identifying priorities and perspectives of focus group participants, and highlighting common ground among the diverse participants including:
  - The public safety perspective;
  - The telecommunications/information systems perspective;
  - The transportation perspective; and
  - The manager perspective.
- Identifying institutional, technical and policy barriers; and identifying ways to overcome them at the federal, regional, and local government levels as well as through the private sector;
- Developing local government recommendations for federal programs in such areas as funding and resources, research and development, implementation of technology, interagency assistance, and others; and
- Identifying actions needed to make collaborative progress easier and swifter. Stein noted that throughout the meeting, emphasis

would be placed on technology—very broadly defined—and on collaboration.

Two presentations were made to help set the stage for the focus group discussions. Kevin Dopart,Manager, Vehicle Systems & Public Safety, Mitretek Systems, Inc. gave an overview of FHWA's public safety initiative, outlining the major goals and components of the program and highlighting that the agency sought input from focus group participants and others. Stein then presented a summary of responses to a web survey conducted by PTI that was designed to identify safety- and security-related changes in localities' resource allocation and planning efforts after the events of September 11, 2001. The survey also sought information on:

- The range of agencies that have collaborated on safety and security;
- The needs of local jurisdictions related to homeland security; and
- The extent to which respondents have identified wireless communication as a concern.

Priorities and Needs of Local Stakeholders

Hicks opened the discussion by encouraging participants to think broadly and be creative. Stein asked participants to identify priorities and needs from the following perspectives:

- Public Safety
- Telecommunications/Information systems
- Transportation
- City/County Manager
- Public Safety

STANDARDS

In public safety, there is a need for a national architecture similar to that for advanced transportation technologies.

PUBLIC SAFETY

Issues and needs included:

Standards

- The need for technology standards for vendors;
- A national architecture similar to that for advanced transportation technologies; and
- Standards that are not overly complicated.

Cross-jurisdiction cooperation and interoperability

- Sharing information and communications;
- Funding and leadership for implementation of integration;

- Potential requirements for coordinated incident management; and
- Interoperability across jurisdiction boundaries.

Data access and integration

- Having access to needed data;
- Platforms for data transfer and integration;
- Keeping information up to date and reliable;
- Sharing information in various formats and modes (radio, video, electronic); and
- The need to detect, share information, and manage various types of incidents.

SECURITY

Telecommunications systems should ensure that the failure of one node does not jeopardize the entire system.

Geographic information systems

- The need for robust geographic information systems to support emergency services.

Various aspects of telecommunications

- Bandwidth and spectrum allocation; and
- The need for reliable telecommunications in a variety of locations and across jurisdictions.

TELECOMMUNICATIONS/INFORMATION SYSTEMS

Comments centered on issues and needs related to:

Data

- The need to establish common databases to share the collection, integration, and dissemination of data;
- The need for timeliness in data availability;
- The need for flexibility in terms of how different parties might use data; and
- The need for tools, such as mobile video and license information, that can be shared.

Security of telecommunications

- Data security;
- The need for backup and restore capabilities;
- The need for systems where the failure of one node would not jeopardize the entire system;
- The need to enhance tamper-proof systems.

Bandwidth

- Concern about shortage of available bandwidth relative to needs;
- Concerns about band-hog technologies and the need for band-efficient technologies;
- The need for the Federal Communications Commission to guard bandwidth as a public resource; and
- The need to anticipate future bandwidth capacity needs in order to build an infrastructure that will meet needs five and ten years into the future.

The need for collaboration

- The need for common systems across jurisdictions; and
- The desire to overcome resistance to collaboration by working on small, successful endeavors first.

TRANSPORTATION

People commented on a very wide range of topics, including:

The need for intelligent transportation systems (ITS) standards that promote interoperability;

Integration of public safety with other ITS functions;

The use of electronic payment systems;

Speed detection and enforcement;

Incident detection and management for better systems operation;

Leveraging existing investments;

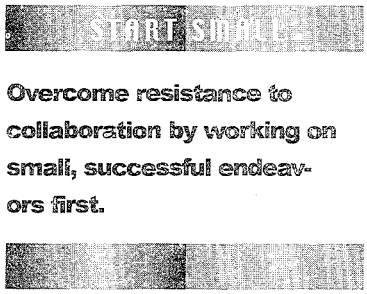
Investing in technologies that are integrated across modes and jurisdictions;

Enhancing the safe operation of intermodal facilities;

Developing tools that integrate transportation, public safety and telecommunications systems; and

Funding and legislation

- Reauthorization of the Surface Transportation Act;
- The need for more federal funding of research and development;
- Additional investments in public transportation;
- Earmarking some ITS and other federal funds to go directly to localities instead of state departments of transportation.



CITY/COUNTY MANAGERS

The need for cooperation and collaboration was a hallmark of many of the comments from the city/county manager perspective, including:

Interjurisdictional cooperation and coordination;

The need to share ideas and find common ground;

Coordination of resources to eliminate duplication;

Coordination of incident management at all levels of government;

COORDINATION

There are benefits that are achieved from leveraging resources with other agencies in a region.

Benefits achievable from leveraging resources with other agencies in a region;

Benefits of public safety chiefs meeting in regular forums to identify shared solutions;

The need for and merits of partnerships across regions:

- Lobbying for resources regionally and standardizing the development of regional systems;
- Partnerships with federal and state officials and agencies, with the private sector and business partners, with professional associations for information and assistance, and among and across the array of agencies involved with public safety, including public health entities;

The need for federal funding that does not duplicate initiatives traditionally funded by states and localities, but that incrementally funds extra steps to help integration and enhance coordination;

Organizing dialogues around frequency allocation; and

Compiling and sharing technologies and related information, since knowledge of technologies and solutions is often limited.

Common Themes across Stakeholders' Perspectives

After review and discussion of the range of perspectives and needs shared by the four groups of stakeholders, participants identified common themes that cut across viewpoints, as follows:

1. **Interagency cooperation** is critical to addressing the public safety, technology and telecommunications issues being faced by localities.

2. **Interoperability** can result from collaboration and cooperation, and it promotes efficient and effective system performance, public safety preparedness, and incident responses.
3. **Promoting standards** would enhance interoperability.
4. **Priorities vary** by region around the country, as do roles and responsibilities of different organizations involved in public safety.
5. **Bandwidth** issues must be addressed to assure adequate telecommunications capacity to support public safety responsiveness.
6. **Transportation technologies** including ITS are of concern both because of security and because they are silos, functionally and institutionally.
7. **Strong committed leadership** is essential to respond to these issues and needs.
8. **Communication and education** are needed to support performance.
9. Localities require more **control over funding**.

Overcoming Barriers

The group discussed barriers to collaboration and suggested ways to overcome them. Barriers were viewed from four perspectives and participants could comment about one or more of these types of barriers:

1. Institutional barriers
2. Technical barriers
3. Policy barriers
4. Other types of barriers

STOVEPIPING

"Stovepiping" stands in the way of collaboration among local units of government and between levels of government.

INSTITUTIONAL BARRIERS

Participants identified barriers and talked about ways to overcome them, including:

- Formal and informal "stovepiping," which stands in the way of collaboration among local units of government and between levels of government. Stovepipe approaches are fostered by state and federal grants and funding programs that are not coordinated. Multiple federally sponsored initiatives to public safety and security since September 11, 2001 have not been coordinated. Legal and organizational restrictions work against forming entities to support intergovernmental cooperation. Using existing organizations rather than creating new ones will help to avoid stovepiping.

- Protecting turf;
- Changing administrations and elected officials were cited as barriers;
- Local governments must be responsive to their citizens—hence, local needs require local approaches;
- A shortage of champions to lead local and regional efforts;
- The need to bridge different cultures of organizations like fire, police, transportation, and emergency services;
- The burdens on local governments from levels of government above them, including laws, requirements and unfunded mandates that impact local resources; and
- One participant noted that coordinated marketing strategies can foster a shared vision and better understanding of the benefits.

MARKETING

Coordinating marketing strategies can foster a shared vision and better understanding of benefits.

TECHNICAL BARRIERS

These included:

- The lack of compatibility and interoperability;
- The lack of open systems, leading to lack of compatibility and interoperability;
- The lack of incentives for technologies to work together;
- The lack of leadership for interoperable technologies and open systems;
- The marketplace is an issue, in terms of:
  - Technology companies are competitive rather than cooperative;
  - The marketplace sets the technology agenda, not federal "edicts"; and
  - Vendors want to treat localities separately so they can sell more products.
- Impacts of changing technologies, legacy systems, and the challenge of staying ahead of the curve so that localities are not using technologies that are quickly obsolete; and
- Funding was cited as a barrier in several respects:
  - The need for funding;
  - The impact of prior investments on current funding choices and decisions;

- The need for a full picture of costs, including both initial capital costs and operating costs down the road.

POLICY BARRIERS

Funding criteria of federal programs were cited as an obstacle, and other comments included:

- The problem of security and ITS funding working against each other, rather than being leveraged;
- The need to expend resources in order to enforce policies;
- Entrenched policies that are obsolete, but hard to change, were noted as a barrier;
- The failure to develop or modify policies to focus on solutions;
- Legal barriers;
- Local procurement requirements;
- Loopholes around policies; and
- Education related to ITS, including the need to educate people from legislators to purchasing agents to the general public.

OTHER BARRIERS

A handful of additional barriers were mentioned by participants, including costs, the absence of strong management and control, and the lack of universal requirements to promote collaboration.

Parties and Ways to Overcome Barriers

Focus group participants brainstormed in response to the question "who should be involved in addressing barriers and what mechanisms should be considered to overcome barriers?"

A wide array of entities was seen as key to overcoming barriers to collaboration. This included all levels of government: local, regional, state, and federal. The private sector was seen as an important partner as well, as were associations and the media. Educational institutions and citizens at large were also felt to have valuable contributions to make in overcoming barriers to collaboration.

OVERCOMING BARRIERS

A wide array of entities is key to overcoming barriers to collaboration, including all levels of government, the private sector, associations and the media.

Likewise, participants mentioned a broad array of potential mechanisms that could be employed to overcome the barriers they cited previously. These included:

1. **Legislation:** A clear purpose and ongoing planning are essential foundations for legislation; and it should be an enabling force, in order to encourage interaction, cooperation;
2. **Regulation** (at various levels of government);
3. **Funding** to support both programs and processes: Multiple small disbursements as opposed to larger sums were considered by some to be undesirable;
4. **Cooperative agreements**;
5. **Research and development:** Local governments do well in testing existing products and are able to put together seemingly disparate pieces to create solutions that work;
6. **Efforts to foster a common vision**;
7. **Outreach** to stakeholders;
8. **Processes** to develop and foster standards; and
9. **Training** to improve knowledge, skills, and competencies.

THE MEDIA

The value of branding is a basic principle of marketing; there is a need to create branded initiatives and promote them through the media.

The focus group spent quite a bit of time discussing the role of the media. Several people felt that use of the media as a partner has been very limited. Others discussed the value of branding as a basic principle of marketing and noted the need to create branded initiatives and promote them through the media. One person commented on the major role the media has played in some areas in getting new equipment and funding for fire departments as a result of 9/11.

Considerable discussion focused on identifying partner organizations that could be helpful in working with localities on issues and opportunities associated with public safety, telecommunications, and technology. These included Public Technology, Inc., the National League of Cities, the National Association of Counties, the International Association of Fire Fighters, the Fraternal Order of Police, and the Association of Public Communications Officers.

Recommendations to Federal Programs

One of the highest priority purposes of the focus group was to identify local government recommendations to federal programs, under a wide array of federal agencies. Participants' comments and suggestions were generated in four major areas:

- Several specific areas of technology were cited as well:
  - Interstate travel information;
  - Signal cameras with road and transit interface for safe evacuation along major arterials;
  - Mobile terminal/camera applications for telemedicine.

Funding/Resources

Many opportunities for federal funding in support of localities were noted by participants. Direct funding to localities was mentioned both generally and in various contexts related to technology and public safety.

- For capital funding of intelligent transportation systems;
- For integration of ITS and public safety applications (for example, for red light running and for integration of efforts with public safety answering points);
- For installing communications and signal equipment in rights-of-way;
- For purchasing equipment like signals and cameras;
- For local testing and application of ITS technologies to improve public safety;
- For best practices in public safety modal integration;
- Earmarked funds from spectrum auctions for local ITS and public safety applications;
- Federal funding to support regional comprehensive planning;
- Build interoperability requirements into funding criteria;
- Establish a funding formula that would build in provision for densely populated urban areas, given both the need for and challenges of implementing technology, communications and public safety programs in these areas; and
- Some federal programs might work more effectively if they include seed money, without a lot of strings attached, with follow-up done on results; those that yielded good results could earn continuing investment.

FUNDING

Establish a funding formula to build provision for densely populated urban areas.

Several participants suggested funding for training and for national dialogues around such topics as ITS and information technology, marketing and implementing ITS solutions, in order to build local capacity and also increase localities' competitiveness in securing federal funding. Similar federally funded dialogues were

suggested for freight operators and auto manufacturers, to encourage them to work locally and develop integrated approaches that support emergency evacuation, incident management, parking technology, global positioning systems, and traveler information.

Interagency Cooperation

The need for integration and interagency cooperation was a dominant theme. Participants made the following suggestions:

- The federal government should establish an office (like the Joint Program Office in the Department of Transportation) to manage the development of regional and state plans to integrate transportation, safety, and telecommunications;
- Roles for regions, states, and the federal government should be delineated for integrated planning and implementation;
- In a similar vein, incentives would help to develop and achieve mutual goals established through integrated planning;
- Incorporate funding criteria that specifically require local, regional and state collaboration should be included;
- Funding should flow to localities that implement integrated systems;
- Inclusion of specific entities in interagency agreements should not be mandated;
- A cooperative forum with the private sector would help advance integrated deployment, and funding should support such integrated deployments;
- Public safety and telecommunications should be required to be part of regional ITS architectures and other regional plans;
- Information about what is working well should be collected and disseminated in order to facilitate communication and interagency cooperation;
- The federal government could establish a planning forum and clearinghouse for the integration of transportation, telecommunications, and public safety, including analysis and evaluation for use by state and local agencies; and
- The National Association of Regional Councils and others could establish a national forum to provide a platform and advance a policy of integrated planning.

DIALOGUES

Federally funded dialogues are suggested for freight operators and auto manufacturers, to encourage them to work locally and develop integrated approaches that support emergency evacuation, incident management, parking technology, global positioning systems, and traveler information.

Actions for Collaborative Progress

In the final discussion of this focus group, participants were asked to suggest specific actions that should take place in order to expedite collaboration in three areas:

- Wireless communications
- Incident management
- Technology for traffic enforcement

Wireless Telecommunications

A wide array of suggestions was offered about ways to enhance collaboration on wireless issues, including:

SPECTRUM ISSUES

- A wider spectrum is needed for public safety and related communications;
- Agencies need to agree to get data off wireless and onto land lines so needed spectrum is available for wireless communications;
- The discussion on spectrum needs to be extended to involve parties from all relevant areas, such as public safety, the medical community, and others;
- A potential role for the Federal Communications Commission would be to conduct a national process of local input and goal setting, in order to manage spectrum capacity with long-term national goals in mind, and then issue licenses based on providers' demonstration of fulfilling those goals;
- There is a need to define wireless communication requirements for large-scale, multi-agency emergency responses, and to use that to model and scale a "perfect" wireless system so that roadblocks can be removed;
- There is a need to consider multimodal communications technologies to meet the needs of different participants;
- There should be agreement on long-term goals and measurement of short- and medium-term progress against the plan—and a process for planning this needs to be set forth; and
- Funding for more effective spectrum management should be done through grants and 80/20 matches of local investments.

SPECTRUM

The FCC could conduct a national process of local input and goal setting, in order to manage spectrum capacity with long-term national goals in mind.

COMMUNICATIONS CAMPAIGN

- A message and "brand" could be developed and then communicated to Congress, federal agencies, associations, and others to inform and educate people on the significance of the issue;
- Government needs a spokesperson on these issues, particularly as they relate to business needs; and
- A national forum on the major issues affecting wireless communication would be useful.

Additional comments included the need to serve the disabled community, the potential of partnerships with private companies on issues such as location detection, and the need for funding in the upcoming surface transportation reauthorization or from other sources, in order to meet resource requirements.

UNIFIED SYSTEMS

There is a need for unified command and control systems, both regionally and nationally. Incident management is by nature a program of integrated services.

Incident Management

The need for communication and collaboration was identified as an important aspect of incident management. This includes:

- Daily collaboration on incidents among fire, police, transportation, public safety, and others, perhaps with incentives and encouragement from leaders to do this. Such daily collaboration will provide the basis for locals to be better prepared to work together on major incidents;
- The need for unified command and control systems, both regionally and nationally. Incident management is, by its very nature, a program of integrated services. Therefore, it should be planned, programmed, coordinated, and funded in a unified approach so that unified, mutual goals are met. State and national needs should be integrated into local systems. Such collaborative approaches require education and training of all participants, along with common data formats, shared information, including real-time information and information that is reliable;
- Local commitment and participation are needed to manage incidents effectively;
- Increased use of technology is warranted, such as more cameras on public roadways;
- Financial support for integrated transit and roadway video monitoring for congestion management;
- Tougher licensing for all classes of motor vehicle operators, in order to prevent incidents;

- On-scene video data systems; and
- National dissemination of incident management software systems by a national group such as PTI.

WHO DRIVES?

Government, not vendors, must be in the lead on use of technology for enforcement.

Technology for Traffic Enforcement

Focus group members felt that education and communication about the benefits of investments in prevention and use of technology (benefits such as lives saved, reduced medical costs, congestion prevented) would be helpful to build support for use of technology for traffic enforcement.

One person noted that federal rules would help to enable regions to use various technologies (cameras, video, etc.) for enforcement, but such rules should have wide scope and allow for flexibility.

National policies would also help to support local efforts to prevent injuries and better manage public safety, particularly when such efforts garner opposition from elected officials. One person pointed out that government, not vendors, must be in the lead on use of technology for enforcement.

Finally, there is a need to pay attention to pedestrian safety, not just traffic-related enforcement. ■

FOCUS GROUP PARTICIPANTS

PTI and FHWA gratefully acknowledge the contributions of the participants:

- **Mitchell E. Johnson**, Assistant City Manager, City of Greensboro, NC
- **Peter K. Anderson**, CTO-CIO, City of Columbus, OH
- **Daniel McFarland**, Chief Information Office, City of Dallas, TX
- **Stan Wu**, Telecommunications & General Services, City of Seattle, WA
- **Mike Press**, County Manager, Johnson County
- **Gordon A. Aoyagi**, Fire Administrator, Montgomery County, MD
- **Richard Vogt**, Chief Technology Officer, Sedgwick County, KS
- **Andrea D'Amato**, Commissioner, Transportation Department, City of Boston, MA
- **Nancy Jesuale**, Director, Communications/ Networking Division, City of Portland, OR
- **John Duve**, Program Manager, Advanced Transportation Systems, San Diego Assn. of Governments
- **David Stone**, Project Manager, 911 RDMT Project Team, City of Austin, TX
- **Bill Johnson**, Assistant County Manager, Miami-Dade County, FL
- **Don Grabowski**, Deputy Commissioner, Department of Transportation, City of Chicago, IL

May 2002 Web Survey Results
ITS/Public Safety/Telecommunications

Public Technology, Inc. (PTI) conducted a Web-based survey to gather the opinions and ideas of representatives from local governments about Intelligent Transportation Systems (ITS), Public Safety, and Telecommunications. The objective was to learn what local jurisdictions have done in response to the September 11, 2001, terrorist attacks—specifically in the areas of cooperation and collaboration.

PTI member jurisdictions were invited to complete the survey and were offered a chance to win a digital camera as an incentive. Invitations were sent via e-mail. From the e-mail invitation, respondents could click through to a survey landing page that offered a brief overview of the survey and explained how their responses would be used.

The results of this survey offer a glimpse into how local jurisdictions are addressing ITS, public safety, and telecommunications since 9/11/01.

QUESTION 1

Nearly 72% of respondents reported that their jurisdiction has shifted local resources (funding, equipment, and/or personnel) to build up homeland security capability.

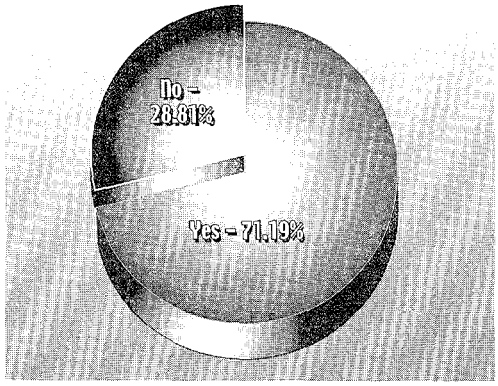
As a result of the disaster on September 11, 2001, has your jurisdiction shifted local resources (funding, equipment and/or personnel) to build up homeland security capability?

A) Ballot

Method:	Yes / No.
Options:	Allow bypass.
Descriptions:	Select either Yes or No.

B) Results Spread

Choices	Count
Y	42
N	17



Results Chart (1. As a result of the disaster on September 11, ...)

Statistics

Yes%	71.19
No%	28.8
N	64
n	59

QUESTION 2

Nearly 75% of respondents expressed an awareness of increased attempts to plan, coordinate, and collaborate among transportation, public safety, and telecommunications systems agencies within their metropolitan area.

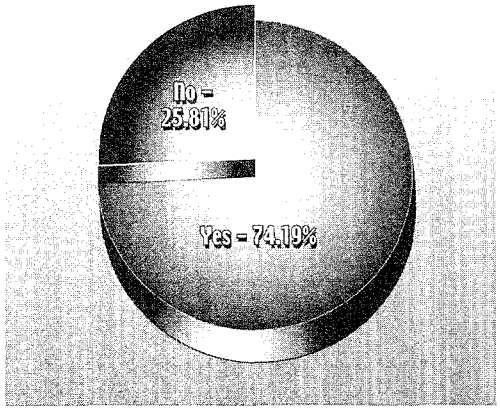
Are you aware of any increased attempts to plan, coordinate, and collaborate among transportation, public safety, and telecommunications/information systems agencies within your metropolitan area?

A) Ballot

Method: Yes/No.
Options: Allow bypass.
Descriptions: Select either Yes or No.

B) Results Spread

Choices	Count
Y	46
N	16



Results Chart (2. Are you aware of any increased attempts to plan, ...)

Statistics

Yes%	74.19
No%	25.81
N	64
n	62

QUESTION 3

When asked which agencies were coordinating and/or collaborating, respondents listed various agencies such as transportation, water, information technology, fire, health, police, public affairs, and public safety—to name just a few. They also identified several existing and new coordinating bodies that were taking the lead for this cooperation, such as offices of emergency communications, traffic operations centers, regional task forces, regional planning agencies, city and county offices, regional transportation offices, and councils of government. They indicated that coordination and/or cooperation are occurring across all levels of government, including federal, state, regional, and local jurisdictions.

If yes, which agencies coordinated and/or collaborated?

A) Ballot

Method: Open-ended
Options: Allow Bypass
Maximum Number of Characters: [1000]
Descriptions: Click in the box to enter text.

B) Text Responses

Total Number of Respondents (N): 64
Number of responses to this question (n):47

1. Police, Fire (City and fire districts), Transportation, Water, Information Technology, Operations, Finance, Procurement, County Sheriff's Office, Governor's Office, Department of Public Safety, Emergency Management, Homeland Defense Office, Department of Justice, Treasury, Customs, Immigration and Naturalization Service, Federal Bureau of Investigation, Border Patrol, U.S. Air Force, U.S. Army, congressman, state legislators.
2. Public Safety, Fire, Public Works.
3. Office of Emergency Communications is coordinating Water, Sewer, Police, Fire, and other departments to identify deficiencies in the existing response process. Jammed wireless lines were a specific problem encountered on September 11th.
4. County has opened a new traffic operations center that coordinates state, county, and city traffic management functions.
5. Fire, Health, Police, Public Works, Water, Ambulance, Hospitals, Regional Council of Government, Aviation, State Emergency Management, FEMA.
6. The State is coordinating efforts to set up regional task forces utilizing city, county, and agency personnel and equipment.
7. Emergency operations center, police, fire, information technology, public health, executive, utilities, public works.

8. Regional Planning Agency with Public Safety, Transportation, and Health departments in all cities and counties.
9. Emergency Management is coordinating all the law enforcement agencies and communications areas.
10. All public safety responders: police/fire/rescue/ highway patrol/public works/civil defense.
11. Meetings with all agencies as a whole to identify and improve relations and look at gaps in service provision. Researching improved communication capabilities (fiber).
12. Police, Fire, Telecom/IS, Transportation, Public Affairs (Cable TV), HR/Safety, and Water Departments.
13. Many public safety, planning, and transportation agencies are collaborating with National Electrical Manufacturers Association on the development of a pilot for the 120 Cities project.
14. City Agency-wide Information Systems Security Audit. City Agency-wide Information Systems Data Systems Backup Review. City Department of Transportation and Engineering Airport Security Audit and Improvements.
15. No Emergency Management from DC has coordinated with local EM.
16. Increased focus on collaboration re telecomm network development.
17. The County Police Department has been coordinating with member agencies of the Council of Governments, known as COG. COG has numerous sub-committees for Police, Fire, and Rescue, Public Works, Chief Executives, etc. Interoperability and communications are key elements in the planning.
18. Change table-top exercises to focus on chemical/biological terrorism. Update the terrorism target list and the response plan for each.
19. All public safety and other city offices have had several meetings for disaster relief and recovery, alternate sites, etc.
20. The police and fire agencies of County and the City. Other County agencies are looking into connecting with the County system.
21. Private vendors and local law enforcement.
22. While there are wonderful efforts to collaborate on DR, the continuity portion lacks a bit. Additionally, I've seen too many folks attempting to get around IT to implement their Taj Mahals, not thinking about the impact to the entire enterprise.
23. A regional planning effort is being spearheaded by County's Office of Emergency Manage-ment. City's arm, managed by the Fire Department, is actively involved.
24. Public Safety.
25. Police, Fire, EMS, state police, transit police.
26. Regional Transportation Authority. Tax Appraisal District; County; Port Authority
27. All telecommunications and public safety agencies of the county and cities within the county along with some federal agencies.
28. The City Office of Emergency Communications has taken on new responsibilities at the direction of our Mayor. We are now responsible for Emergency Management and Communications. We are beginning a process of interviewing each city department in an attempt to secure their emergency disaster plan. The process will develop a full list of plans that will be melded together. Then the OEMC will design a plan involving all these agencies to act as the pivot point in the deployment of the new (all inclusive) plan. Immediately following 9/11/01, we worked with mass transportation to develop plans for the emergency evacuation of the city's downtown area using buses and trains that would leave fully loaded from downtown and deliver all the passengers to a designated area that could be used for medical triage, etc. The city already has in place a radio interoperability system that will provide a mobile communications suite that provides full interoperability.

29. The city, county, and state emergency management representatives recently got together with transportation, communication, and local law enforcement to discuss a mass evacuation plan for the city. Out of that came meetings to plan for interoperability of systems. Still ongoing at this time.
30. We were already working on an 800 MHz radio system with the county. There have been numerous meetings between police/fire agencies in the county regarding public safety response and coordination on this issue.
31. COG has taken the lead on coordinating emergency response via state governments, then to local jurisdictions. Committees have been set up for transportation, traffic and transit, police and fire, emergency services, environmental.
32. A Deputy City Manager/CIO was designated to coordinate all homeland security matters for the City.
33. The Police Department and neighboring towns are coordinating on exodus/traffic impacts. Emergency Management Agency (EMA) is coordinating police, fire, and emergency medical service response.
34. Fire is coordinating with Transit to improve the Optiscan traffic signal system, using the same funds to address the needs of both.
35. Airport Authority (two); local FEMA organization; City Public Safety Department; Regional Planning Organization; Transit Authority; Local County Sheriffs
36. The Metropolitan Planning Organization coordinated an effort to produce a regional response plan, including public safety, emergency operations, transportation, utilities, etc.
    Overall good effort, but seemed like there was a lot of duplicative effort as well.
37. [Several cities in the region.]
38. Plan to expand "real-time" communications (voice, video, data) between city, county, state, and federal law enforcement, transportation, and fire/rescue/medical authorities. Currently have an operational radio "gateway" (tri-band repeater) to allow for operations between agencies in the metro area.
39. Police, fire, county sheriff and city Information Technology staff.
40. [1st City] Department of Safety (Police and Fire), [1st City] Health, [2nd] City Police and Communications, [3rd] City Police, Qwest Communications, Metropolitan Chiefs of Police, Metropolitan Fire Chiefs, [1st City] Public Health, [1st City] Environmental Health.
41. Recent discussions since September 11th have included collaboration with local justice/law enforcement agencies, emergency management, emergency communications/911, EMS/fire, public works, utilities, airport, and Information Technology. These discussions have been geared to understanding each other's resources and how tighter collaboration with these resources could aid us in addressing homeland security issues.
42. Government: local state and federal; private businesses and non-profits.
43. [City] Department of Public Safety, County Sheriff, Medical Center, Office of Emergency Management, and Community Health Department.
44. Emergency Management, Public Works, and Health Department.
45. Internally within the County Government. Regionally, through the Council of Governments. Direct communications from county agencies to similar agencies in adjacent jurisdictions.
46. Law enforcement, fire service, and emergency medical agencies have developed multi-jurisdictional plans and communications systems in the region. Hospitals and public health departments are also involved and are working on a

health surveillance system for bio-terrorism needs.

47. Greater coordination is taking place between the [City] Police Department and the County Sheriff's Office. Also, greater coordination is taking place between the [City] Fire Department, the County Fire Department and many other voluntary fire agencies within the county. This coordination is taking place through County Emergency Management.

QUESTION 4

When asked what is the most important thing needed by their jurisdictions for homeland security other than funding, respondents listed:

- **Better coordination and understanding of what is happening at all levels of government;**
- **Improved communications capabilities;**
- **More knowledgeable staff and greater training opportunities;**
- **Greater understanding of threats and appropriate responses.**

What is the most important thing needed by your jurisdiction for homeland security other than funding?

A) Ballot

Method: Open-ended.
Options: Allow bypass
Maximum Number of Characters: [1000]
Descriptions: Click in the box to enter text.

B) Text Responses

Total Number of Respondents (N):64
Number of responses to this question (n):54

1. Regional coordination; Efficient information sharing between local jurisdictions and county, state, and federal governments.
2. External direction that sets expectations. Funding must be included.
3. Better understanding of all that is taking place at the federal level.
4. Training.
5. Threat assessment analysis for infrastructure as well as buildings. Information on and funding for the most cost-effective security technology.
6. In addition to funding, we need funding. After that, technical assistance to assess conditions and threats, and to develop communications systems is needed.
7. Communication and consistent criteria.

8. Training opportunities; access to new technology.
9. Improved coordination and planning focus from state and regional level.
10. Specialized equipment necessary to meet the various types of disasters and acts of terror.
11. Resources along with funding are critical. There needs to be enough staffing to plan and set up tests.
12. Innovative way to allow for communications among different radio frequencies.
13. Training.
14. Communications infrastructure (wired and wireless) to use during an emergency; command center; and process to immediately notify residents and businesses (e-mail, Internet home page, or other mechanisms).
15. Improved and expedited communications and coordination between federal, state and local efforts. Greater federal coordination of various overlapping federal proposals, data collections, etc. A need for agencies to stop using Homeland Security as the latest reason to promote their long-outstanding pet project.
16. Information Technology disaster. Recovery planning and implementation.
17. Improved public information regarding response to terrorism.
18. Staff in emergency management.
19. Communications resources.
20. Staff awareness and education.
21. Interoperability between jurisdictions, timely communications, with the sharing of sensitive information.
22. We need to restrict information on the Web. For example, bridge plans showing sensitive details such as communications installations. Or dam details. Security clearances for those who need to know these details.
23. Command and Control systems, including integrated CAD/RMS/Field Reporting for Fire and Police. Linkage between 911 call center and Emergency Operations Center.
24. Education and staffing.
25. Coordination and cooperation between the agencies. That seems to be a BIG problem.
26. A sense of need for information sharing among law enforcement agencies.
27. True and honest team collaboration with a top-down management commitment.
28. Clear, consistent communications from the feds in a format that is meaningful and relevant to local jurisdictions.
29. Unknown response.
30. Disaster Recovery Systems.
31. Classified information.
32. A cohesive operations plan involving all public safety agencies, private building security forces, mass transportation, public utilities, and the news media focused on the ability to safely evacuate a given area in a minimal amount of time.
33. Establish a "Homeland Security Unit" to oversee budget, equipment, personnel, site security, communications etc.
34. Information on systems/plans that are up and running and successful. It helps to not have to reinvent the wheel.
35. Models for cooperation.
36. Communication.
37. Communications infrastructure that is integrated throughout different agencies with different charges. Command and Control capability.
38. Central coordination management. Who is really in charge in a given instance?
39. Training, technology, equipment.
40. Better communications capabilities.
41. Personnel. In these lean budget times, it becomes more difficult to assign new tasks to people who are already stretched to their limit.
42. Secured radio frequencies.

43. Dedicated frequencies reserved for law enforcement, fire/rescue/medical, and transportation agencies. Funding for communications equipment; communications center so all agencies can act and communicate together immediately via radio, video; and critical information.
44. Information identifying risk.
45. Integrated business continuity and disaster recovery plan, IGAs, Service Level Agreements, communications system integration (interoperability), data system integration.
46. Many ideas have arisen out of brainstorming/fact-finding sessions, each with a high level of merit. Some of the most fundamental ideas discussed include working towards the use of automation to foster data sharing and aid in event response.
47. Understanding the reality of the threat and the significant impact an action would have on daily performance and delivery of services. Redistribution of staffing and refinement of performance objectives—immediate, short-term, and projected period.
48. Advanced Technology (wireless infrastructure).
49. Training and technical assistance.
50. Coordination and some funding .
51. Collaboration between agencies.
52. Co-location of "first responding agencies" to unpredicted events.
53. Improved sharing of pertinent information amongst agencies at the federal, state, and local level. Examples include best practices and protocols for bio-terrorism response, sharing of tactical information in a timely manner, and common IT systems to facilitate the sharing of tactical information.
54. Specialized equipment like detectors and decontamination equipment; coordinated plans [many already exist] for response to WMD incidents; and specialized technical assistance with training and simulations.

QUESTION 5

Nearly 85% of respondents reported that agencies within their metropolitan area have identified wireless communications as a public safety and security concern.

Have agencies within your metropolitan area identified wireless communications as a public safety and security concern?

A) Ballot

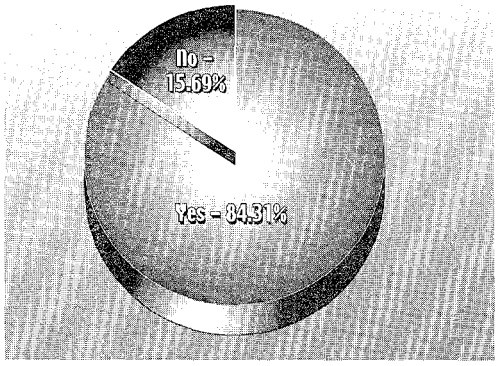
Method: Yes/No.
Options: Allow bypass.
Descriptions: Select either Yes or No.

B) Results Spread

Choices	Count
Y	43
N	8

Statistics

Yes%	84.31
No%	15.69
N	64
n	51



Results Chart (5. Have agencies within your metropolitan area ...)

QUESTION 6

When asked how they were addressing the issues surrounding wireless communications, several jurisdictions reported that they were working to improve communications through installation of additional wireless sites and 800 MHz radio systems. Still others were examining alternatives and back-up systems, as well as increasing security at sites.

If yes, what has been done?

A) Ballot

Method: Open-ended.
Options: Allow bypass.
Maximum Number of Characters: [1000]
Descriptions: Click in the box to enter text.

B) Text Responses

Total Number of Respondents (N): 64
Number of responses to this question (n): 40

1. We recognize that cellular communications would be among the first to go down in the event of an incident—primarily due to overuse by the public. For this reason, we have avoided any reliance on cellular communications by public safety staff.
2. Police has a $600,000 DOJ grant to establish 64 wireless sites throughout the City. With proper planning, we hope to provide high-speed wireless connections for our officers within 70% of the city. The sites are connected via fiber and are at all city buildings.
3. We are in the process of procuring a new 800 MHz radio system jointly with surrounding municipalities. This was in process prior to 9/11.
4. Inventory, planning for use in disaster, acquisition of satellite communications equipment.
5. We are working with the city's wireless companies to have channels reserved for city use in emergency situations. Federal legislation requiring this cooperation would be helpful.
6. The primary problem is to ensure that wireless systems are integrated with 911 communications. Also, there are issues of radio frequency competition.
7. We are currently in the process of installing an 800 MHz, digital, trunked radio system to serve our public safety personnel. We will need to work to get the other agencies in the county and state to move to this technology to avoid the problem of inter agency communications.
8. Obtained priority access in the event of emergency from carrier; assured emergency numbers are supplied to key staff.
9. A planning process to address it is underway.
10. We've got several pilot tests being conducted in the public safety arena.
11. Set up an active task force; conducted a preliminary study.
12. Researching different ways to link departments, EOC utilizing this technology.
13. Nothing yet.
14. Nothing beyond discussion.
15. Establish blanket contract/distribution for wireless/2-way voice services.
16. As previously stated, we are working with various Public Safety Agencies in the Metro Area through the Council of Governments and between individual agencies to come to an agreement on how we will operate on each other's Police, Fire, and Rescue Radio and/or Computer Systems. COG is currently adopting an MOU for the region, and currently several jurisdictions, such as the County, already have MOUs in place for other agencies to operate on our Public Safety Radio System in the event of an emergency and/or natural disaster.
17. Nothing. Not an easy problem to fix. Qwest has not agreed to prioritize cell phone calls in the event of a disaster.
18. Nothing yet. We are still exploring the viability of wireless as well as any security problems we might encounter.
19. Exploring and testing various security measures for wireless communication.
20. We have been working with PSWN and NTFI to identify the concerns and solutions. Additionally, we have been working with our local warranty and maintenance (MSS) service organization to build a multi-purpose EOC trailer capable of connecting communications within disparate groups and systems.
21. Reaffirmed our commitment to developing a comprehensive public safety wireless network both internal to the City and throughout the region.
22. Increased security at each of the sites, removed sensitive items from public access.
23. Computer services administrators and legal unit personnel are lobbying for increasing our ability to communicate with security and not have the shrinking bandwidth eaten up by the private

sector, causing interference problems and decreasing our ability to grow as needed.

24. Joint radio system plan underway (so agencies can talk with one another). Also tying into a state system for mutual aid issues. When purchasing cell phones for emergency response unit, have ensured we have phones from several vendors so there is a back-up.
25. Doing wireless strategic plan at this time that will lead to definitive plans to upgrade/replace the City's wireless voice/data systems.
26. We are concerned with loss of service and are strategizing on backup plans and services.
27. Options are being evaluated.
28. Other than ID it, not much; concern noted shutdown of access to wireless phones and potential for that to happen again is the concern.
29. We are encrypting, of course, but we are looking at its effectiveness and at alternatives.
30. Schedule for implementation of 800 MHX radio system was set in stone.
31. Currently meeting and forming a metropolitan group to facilitate wireless communications at all levels. Looking into a regional communication center.
    Currently developing telemedicine link between paramedics and trauma center to link fire personnel and doctors during an emergency.
    System is using existing fiber optics transportation communications lines to transmit patient vital signs from a moving or stationary ambulance.
32. Nothing yet.
33. Participating in the Project Locate.
    Representative from the Department of Safety represents public safety on the Department of Transportation Wireless Expert Working Group and on the Transportation Wireless E9-1-1 Secretarial Initiative Steering Council.
    Representative also chairs the Intelligent Transportation Systems Public Safety Advisory Group.
34. Prolonged discussions and acquisitions.
35. We are expanding our wireless LAN.
36. Statewide planning for implementation of 800 MHz technology.
37. A contractor is reviewing alternative methods of wireless communication for the Emergency Telephone System Board.
38. Enhanced communication systems (not as familiar with the details).
39. Multiple agencies in two states side of the region have developed a method to intercommunicate despite disparate radio systems. Further work needs to be done to obtain priority access to private wireless networks in time of disaster.
40. Right now, only our metropolitan agencies are able to communicate with one another over our 800 MHz trunking system. We have limited ability to communicate with assets of the state or other areas outside our metro area. There is a need for a coordinated approach—at the state level—for state-wide communications.

If you would like to be included in our drawing for a digital camera, please provide your email address or contact information.

Responses to this question excluded from report to maintain anonymity of respondents.

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